

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior listings and versions of claims in this application:

1. (Currently Amended) An objective lens for an optical pickup device conducting at least reproducing and/or recording of information for a first optical disc having a protective base board thickness t_1 being not smaller than $\{0 \text{ mm} \leq t_1 \leq \text{and not larger than } 0.2 \text{ mm}\}$ by using a light flux having a wavelength λ_1 being not smaller than $\{370 \text{ nm} \leq \lambda_1 \leq \text{and not larger than } 440 \text{ nm}\}$ and reproducing and/or recording of information for a second optical disc having a protective base board thickness t_2 being larger than $\{t_1 < t_2\}$ by using a light flux having a wavelength λ_1 , comprising:

a first zone defined as an area representing a designated area on an optical surface of the objective lens in which a light flux with the wavelength λ_1 passing through the area is used for conducting reproducing and/or recording of information for the first and second optical discs,

wherein when a third optical disc having a protective base board thickness T being not smaller than $\{0.13 \text{ mm} \leq T \leq \text{and not larger than } 0.25 \text{ mm}\}$ is assumed, a 3rd order spherical aberration value SA_3 that is generated when a light flux having the wavelength λ_1 passing through the first zone after entering the objective lens to be in parallel with an optical axis is converged on an information recording surface of the third optical disc, satisfies the following expression:-

$-0.01 \lambda_{\text{rms}} \leq SA_3 \leq 0.01 \lambda_{\text{rms}}$, where rms represents that the value of SA_3 is a root mean square wavelength value.

2. (Original) The objective lens according to claim 1, wherein when conducting reproducing and/or recording of information for the first optical disc, the light flux having the wavelength λ_1 enters the objective lens as convergent light.

3. (Currently Amended) The objective lens according to ~~claim 2~~ claim 2, wherein optical system magnification m_1 of the objective lens in the case of conducting reproducing and/or recording of information for the first optical disc satisfies $1/100 \leq m_1 \leq 1/55$.

4. (Original) The objective lens according to claim 1, wherein the light flux having the wavelength λ_1 enters the objective lens as divergent light, when conducting reproducing and/or recording of information for the second optical disc.

5. (Original) The objective lens according to claim 4, wherein optical system magnification m_2 of the objective lens in the case of conducting reproducing and/or recording of information for the second optical disc satisfies $-1/15 \leq m_2 \leq -1/50$.

6. (Original) The objective lens according to claim 1, wherein the first diffractive structure is provided on at least one optical surface of the objective lens, and the first diffractive structure has a positive diffracting power for the incident light flux having the wavelength λ_1 .

7. (Original) The objective lens according to claim 6, wherein the first diffractive structure has a function to correct chromatic aberration of the light flux having the wavelength λ_1 in the case of conducting reproducing and/or recording of information for the first and second optical discs.

8. (Original) The objective lens according to claim 1, wherein focal length f of the objective lens for the light flux having wavelength λ_1 satisfies $0.8 \text{ mm} \leq f \leq 3.5 \text{ mm}$.

9. (Original) The objective lens according to claim 1, wherein when an area that is a designated area on an optical surface of the objective lens and is an area utilized for conducting reproducing and/or recording of information for the first optical disc for the light flux with wavelength λ_1 which has passed through the area and is not utilized for conducting reproducing and/or recording of information for the second optical disc, is prescribed as a second zone, the second diffractive structure is provided on the second zone, and $B_4 < 0$ holds when the second diffractive structure is expressed as

$$\Phi(h) = (B_2 \times h^2 + B_4 \times h^4 + \dots + B_{2i} \times h^{2i}) \times \lambda \times n$$

by using optical path difference function $\Phi(h)$.

In the aforesaid expression, h represents a height from an optical axis, B_{2i} represents a coefficient of the optical path difference function, i represents a natural number, λ represents a working wavelength and n represents an order of diffraction of diffracted light having the maximum diffraction efficiency among diffracted light of an incident light flux.

10. (Original) The objective lens according to claim 1, wherein a light flux having the wavelength λ_1 used for conducting reproducing and/or recording of information for the first optical disc and a light flux having the wavelength λ_1 used for conducting reproducing and/or recording of information for the second optical disc are emitted from the same light source.

11. (Original) The objective lens according to claim 10, wherein the light source or at least one optical element arranged in an optical path from the light source to the objective lens is moved in the direction of an optical axis when conducting reproducing and/or recording of information for the first optical disc and the second optical disc.

12. (Original) The objective lens according to claim 11, wherein the optical element is a coupling lens or a beam expander.

13. (Original) The objective lens according to claim 1, wherein a light flux having the wavelength λ_1 used for conducting reproducing and/or recording of information for the first optical disc and a light flux having the wavelength λ_1 used for conducting reproducing and/or recording of information for the second optical disc are emitted respectively from different light sources.

14. (Currently Amended) The objective lens according to claim 13, wherein the light source emitting the light flux having the wavelength λ_1 in the case of conducting reproducing and/or recording of information for the first optical disc is arranged to be farther from the objective lens in the optical axis direction than the light source emitting the light flux having the wavelength λ_1 in the case of conducting reproducing and/or recording of information for the second optical disc ~~is~~.

15. (Original) The objective lens according to claim 14, wherein difference ΔL between optical distance L_1 from the light source emitting a light flux with the wavelength λ_1 in the case of conducting reproducing and/or recording of information for the first optical disc and optical distance L_2 from the light source emitting a light flux with the wavelength λ_1 in the case of conducting reproducing and/or recording of information for the second optical disc satisfies $4 \text{ mm} \leq \Delta L \leq 6 \text{ mm}$.

16. (Original) The objective lens according to claim 1, wherein the objective lens is composed of a single lens.

17. (Original) An optical pickup device equipped with the objective lens described in claim 1.